

WHAT IS CLAIMED IS:

1  
2 1. An isolated nucleic acid molecule comprising a polynucleotide sequence  
3 having a subsequence which specifically hybridizes under stringent conditions to  
4 a sequence selected from the group consisting of SEQ. ID. No. 2, SEQ. ID. No.  
5 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6, SEQ. ID. No. 7, SEQ.  
6 ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No. 10, SEQ. ID. No. 12, AND SEQ.  
7 ID. No. 13.

1 2 (2/2). The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.  
3 2.

1 3 3. The isolated nucleic acid of claim 2, wherein the  
2 subsequence is SEQ. ID. No. 2.

1 4 4. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes to SEQ. ID. No. 3.

1 5 5. The isolated nucleic acid of claim 4, wherein the  
2 polynucleotide is SEQ. ID. No. 3.

1 6 6. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.  
3 4.

1 7 7. The isolated nucleic acid of claim 6, wherein the  
2 subsequence is SEQ. ID. No. 4.

1 8 8. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.  
3 5.

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claims renumbered under Rev 126

1 9 8. The isolated nucleic acid of claim 8, wherein the  
2 subsequence is SEQ. ID. No. 5.

1 10 9. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.  
3 6.

1 11 10. The isolated nucleic acid of claim 10, wherein the  
2 subsequence is SEQ. ID. No. 6.

1 12 11. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.  
3 7.

1 13 12. The isolated nucleic acid of claim 12, wherein the  
2 subsequence is SEQ. ID. No. 7.

1 14 13. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.  
3 8.

1 15 14. The isolated nucleic acid of claim 14, 16, 18, 20, wherein  
2 the subsequence is SEQ. ID. No. 8.

1 16 15. The isolated nucleic acid of claim 1, wherein the  
2 subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.  
3 9.

1 17 16. The isolated nucleic acid of claim 16, wherein the  
2 subsequence is SEQ. ID. No. 9.

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18 18 17. The isolated nucleic acid of claim 1, wherein the  
subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.  
10.

19 18. The isolated nucleic acid of claim 18, wherein the  
subsequence is SEQ. ID. No. 10.

20 20 19. The isolated nucleic acid of claim 1, wherein the  
subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.  
12.

21 21 20. The isolated nucleic acid of claim 20, wherein the  
subsequence is SEQ. ID. No. 12.

22 22 21. The isolated nucleic acid of claim 1, wherein the  
subsequence specifically hybridizes under stringent conditions to SEQ. ID. No.  
13.

23 23 22. The isolated nucleic acid of claim 22, wherein the  
subsequence is SEQ. ID. No. 12.

24 24 23. The isolated nucleic acid of claim 1, further comprising a  
promoter sequence operably linked to the polynucleotide sequence.

25 25 24. The isolated nucleic acid of claim 1, which nucleic acid is a  
cDNA molecule.

Claims numbered under Rule 126 2/11/00

27 20 28. A method of screening for neoplastic cells in a sample, the method comprising:

contacting a nucleic acid sample from a human patient with a probe which hybridizes selectively to a target polynucleotide sequence comprising a sequence selected from the group consisting of SEQ. ID. No. 1, SEQ. ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6, SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No. 10, SEQ. ID. No. 11, SEQ. ID. No. 12, and, SEQ. ID. No. 13 wherein the probe is contacted with the sample under conditions in which the probe hybridizes selectively with the target polynucleotide sequence to form a stable hybridization complex; and detecting the formation of a hybridization complex.

27 27 28. The method of claim 26, wherein the nucleic acid sample is from a patient with breast cancer.

27 28 29. The method of claim 26, wherein the nucleic acid sample is a metaphase spread or a interphase nucleus.

29 29 28. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ. ID. No. 1.

30 30 29. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ. ID. No. 2.

31 30. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ. ID. No. 3.

32 31. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ. ID. No. 4.

33 32. The method of claim 26, wherein the probe comprises a polynucleotide sequence as set forth in SEQ. ID. No. 5.

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- 1 The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in SEQ. ID. No. 6.

35 ~~35~~

- 1 The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in SEQ. ID. No. 7.

36 ~~36~~

- 1 The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in SEQ. ID. No. 8.

37 ~~37~~

- 1 The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in SEQ. ID. No. 9.

38 ~~38~~

- 1 The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in SEQ. ID. No. 10.

39 ~~39~~

- 1 The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in SEQ. ID. No. 12.

40 ~~40~~

- 1 The method of claim 26, wherein the probe comprises a  
2 polynucleotide sequence as set forth in SEQ. ID. No. 13.

41 ~~41~~

- 1 The method of claim 26, wherein the probe is used to  
2 identify the presence of a mutation in the target polynucleotide sequence.

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Claims renumbered under Rule 126

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1 41. A method for detecting a neoplastic cell in a biological  
2 sample, the method comprising:  
3 contacting the sample with an antibody that specifically binds a  
4 polypeptide antigen encoded by a polynucleotide sequence comprising a sequence  
5 selected from the group consisting of SEQ. ID. No. 1, SEQ. ID. No. 2, SEQ.  
6 ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6, SEQ. ID. No. 7,  
7 SEQ. ID. No. 8, SEQ. ID. No. 9, SEQ. ID. No. 10, SEQ. ID. No. 12, and  
8 SEQ. ID. No. 13; and  
9 detecting the formation of an antigen-antibody complex.

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1 42. The method of claim 42, wherein the sample is from breast  
2 tissue.

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1 43. A method of inhibiting the pathological proliferation of  
2 cancer cells, the method comprising inhibiting the activity of a gene product of  
3 an endogenous gene having a subsequence which hybridizes under stringent  
4 conditions to a sequence selected from the group consisting of SEQ. ID. 1, SEQ.  
5 ID. No. 2, SEQ. ID. No. 3, SEQ. ID. No. 4, SEQ. ID. No. 5, SEQ. ID. No. 6,  
6 SEQ. ID. No. 7, SEQ. ID. No. 8, SEQ. ID. NO. 9, SEQ. ID. NO. 10, SEQ.  
7 ID. No. 12, and SEQ. ID. No. 13.

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1 44. A method of detecting a cancer, said method comprising  
2 detecting the overexpression of a protein encoded in a 20q13 amplicon.

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1 45. The method of claim 45, wherein said protein encoded in a  
2 20q13 amplicon is ZABC1.

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1 46. The method of claim 45, wherein said protein encoded in a  
2 20q13 amplicon is 1b1.

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Claims renumbered under Rule 126 7/1/00